

## PART-I

Directions (1-10): Select the related word/letter/ figure/number from the given alternatives.

1. Mechanic : Spanner : : Carpenter : ?
(a) Tree
(b) Wood
(c) Furniture
(d) Saw
2. Fish : Gills : : Min : ?
(a) Ears
(b) Eyes
(c) Lungs
(d) Nose
3. Grain : Warehouse : : Water : ?
(a) Drink
(b) Dam
(c) Canal
(d) River
4. AZBY: CXDW : : HSIR : ?
(a) JQKP
(b) KPLO
(c) YBXC
(d) TGSH
5. DMVE : ? : : HQZI : JSBK
(a) GOXF
(b) FOXG
(c) GOXG
(d) FNWG
6. Question Figures:


Answer Figures:

(a)

(b)

(c)

(d)
7. Question Figures:


Answer Figures:

8. Question Figures:


Answer Figures:

(a)

(b)

(c)

(d)
9. $16: 49:: 100: ?$
(a) 85
(b) 121
(c) 144
(d) 169
10. $15: 220:: 100:$ ?
(a) 600
(b) 620
(c) 625
(d) 650

Directions (11-18): Select the one which is different from the other three responses.
11. (a) Son
(b) Niece
(c) Grandson
(d) Grand-daughter
12. (a) January
(b) February
(c) July
(d) December
13. (a) Intelligent
(b) Precis
(c) Stupid
(d) Comprehensive
14. (a) ZXVT
(b) RPNL
(c) OMKI
(d) HFDC
15. (a) MONJK
(b) ACAZV
(c) GMRGS
(d) METEI
16. (a) 19
(b) 25
(c) 16
(d) 49
17. (a) 26,119
(b) 35,513
(c) 10,27
(d) 17, 65
18.

(a)

(b)

(c)

(d)
19. (a) $6-13-24$
(b) $12-19-30$
(c) $18-25-34$
(d) $24-31-42$
20. A series of figures is given which can be grouped into classes. Select the group into which the figures can be classified from the given responses:


(3)

(4)

(5)

(6)

(8)

(9)
(a) $3,5,1 ; \quad 1,4,6 ; 7,8,9$,
(b) $3,4,1$; $5,7,9 ; 2,8,6$
(c) $1,4,9 ; 3,6,8 ; 2,5,7$
(d) $8,5,4 ; 3,2,1 ; 7,6,9$

Directions (21-25): In each of the following questions, arrange the following words in a meaningful order:
21. 1. Neonate
3. Infant
(a) $1,3,2,4$
(b) $4,1,3,2$
(c) $4,3,2,1$
(d) $3,1,4,2$
22. 1. Plastering
2. Painting
3. Foundation
4. Walls
5. Ceiling
(a) $3,4,1,2,5$
(b) $1,2,3,4,5$
(c) $5,4,3,2,1$
(d) $3,4,5,1,2$

Directions (23-30): A series is given with one term missing. Choose the correct alternative from the given one that will complete the series.
23. Z3a, W5a, T8g, Q12j, ?
(a) M16n
(b) N 17 m
(c) N 16 k
(d) K 17 n
24. DGJ, FLN, HKN, JMP, ?
(a) LON
(b) LOR
(c) LOQ
(d) LOM

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25. $321,301, ?, 181,21$
(a) 281
(b) 161
(c) 241
(d) 261
26. 2816, ?, 176, 44, 11
(a) 704
(b) 1408
(c) 352
(d) 2640
27. Question Figure

Answer Figure
(a)
(b)
(c)
(d)
28. Question Figure

Answer Figures:


Answer Figures:

30. Question Figures:


Answer Figures:

31. In a row of children, Harish is eleventh from the left and Mangesh is seventeenth from the right. When they exchange their places, Harish will be thirteenth from the left. Which of the following will be the new position of Mangesh from the right?
(a) Eleventh
(b) Twenty-first
(c) Nineteenth
(d) Twenty-ninth
32. A is the son of B, while B and C are sisters to one another. $E$ is the mother of $C$. If $D$ is the son of E , which of the following statements is correct?
(a) D is the maternal uncle of A
(b) E is the brother of B
(c) D is the cousin of A
(d) B and D are brothers
33. Question Figure


Answer Figures

(a)
(b)
(c)

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34. If BOMBAY is coded as FSQFEC, which word could be coded as QCWSVI?
(a) MANDYA
(b) MANDAL
(c) MYSORE(d) MYSOER
35. If $\mathrm{D}=4$ and READ is coded as 7 , then what is HEAR coded as?
(a) 32
(b) 33
(c) 7
(d) 8
36. Some equations are solved on the basis of a certain system. On the same basis, find out the correct answer from amongst the four alternatives for the unsolved equation:
$72 \times 96=6927$
$58 \times 87=7885$
$79 \times 86=$ ?
(a) 7689
(b) 8976
(c) 6897
(d) 6978
37. If ' + ' means ' $\times$ ', ' - ' means ' + ', ' $x$ ' means '-', ' + ' means ' $\div$ ', then what will be the value of the following?
$20+4 \times 6-5=$ ?
(a) 28
(b) 32
(c) 34
(d) 36

Directions (38-40): Select the missing number from the given responses.

38. | 12 | 14 | 16 |  |
| ---: | ---: | ---: | ---: |
|  | 5 | 9 | 6 |
|  | $\frac{10}{50}$ | $\frac{16}{110}$ | $\frac{?}{84}$ |

(a) 11
(b) 12
(c) 14
(d) 18
39. 144 (132) 121
$64 \quad$ (?) 100
(a) 70
(b) 80
(c) 85
(d) 90
40.

(a) 36
(b) 33
(c) 45
(d) 60
41. In an imaginary mathe-matical operation ' + ' means multiplication, ' $x$ ' means subtraction, ' $\because$ ' means addition and ' - ' means division.
All other rules in mathematical operation are the same as in the existing system. Which one of the following gives the result of 175 $25 \div 5+20 \times 3+10$ ?
(a) 160
(b) 2370
(c) 77
(d) 240
42. Rana travels 10 km North, turns left and travels 4 km and then again turns right and covers another 5 km . He then turns to right-hand side and travels another 4 km . How far is the from the point of starting of his journey?
(a) 5 km
(b) 4 km
(c) 15 km
(d) 10 km
43. Four position of a dice are given below. Identity the number at the bottom when top's number is 6 :

(a) 5
(b) 1
(c) 3
(d) 4
44. Among the four answer figures, which figure can be formed from the cut pieces given the question figure?
Question Figure:


Answer Figures:

45. The diagram gives the number of candidates who failed in Chemistry, Electronics and English in different tests. The total number of candidates appeared was 600 . What is the percentage of candidates who failed in at least two subjects?

## Chemistry


(a) 12.5
(b) 1.25
(c) 12.05
(d) 12
46. Find out which of the diagrams as given in the alternatives correctly represents the relationship among Employers, Doctors and Women

47. In this question, a statement is give followed by four alternative inferences. Select the one which is most appropriate.
Statement: A large number of language specialists write novels.

## Inferences:

(A) Some language specialists do not write novels
(B) A novelist need not be a language specialist
(C) Language specialty is highly helpful to write novels
(D) All novelists are language specialists
48. In this question, a statement is given followed by two conclusions I and II. You have to consider the statement to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow(s) from the given statement.
Statement: Industries destroy the natural resources.

## Conclusions:

I. All natural resources are destroyed by industries.
II. No industries, no environmental pollution.
(a) Only I follows (b) Only II follows
(c) Neither I nor II follows
(d) Both I and II follow
49. Which answer figure will complete the pattern in the question figure?
Question Figure:


Answer Figures:

(a)
(b)
(c)
50. From the given answer figures, select the one in which the question figure is hidden/ embedded?
Question Figure:


Answer Figures:

(a)
(b)
(c)
(d)

| 1. (d) | 2. (d) | 3. (b) | 4. (a) | 5. (b) | 6. (b) | 7. (b) | 8. (c) | 9. (d) | 10. (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11. (b) | 12. (b) | 13. (c) | 14. (d) | 15. (a) | 16. (a) | 17. (c) | 18. (d) | 19. (c) | 20. (c) |
| 21. (b) | 22. (b) | 23. (b) | 24. (b) | 25. (d) | 26. (a) | 27. (d) | 28. (a) | 29. (d) | 30. (b) |
| 31. (c) | 32. (a) | 33. (d) | 34. (c) | 35. (d) | 36. (c) | 37. (c) | 38. (b) | 39. (b) | 40. (d) |
| 41. (c) | 42. (c) | 43. (b) | 44. (d) | 45. (a) | 46. (c) | 47. (c) | 48. (c) | 49. (c) | 50. (a) |

## PAPER-II

## GENERAL AWARENESS

51. Which of the following is not the source of the revenue of central Government?
(a) Income Tax
(b) Corporate Tax
(c) Agricultural Income Tax
(d) Excise Duty
52. 'Operation Flood' is associated with-
(a) milk production
(b) wheat production
(c) flood control
(d) water harvesting
53. Who has the sole right to issue paper currency in India?
(a) The Government of India
(b) The Finance Commission
(c) The Reserve Bank of India
(d) The Central Bank of India
54. A fall in demand or rise in supply of a commodity-
(a) increase the price of that commodity
(b) decrease the price of that commodity
(c) neutralises the changes in the price
(d) determines the price elasticity
55. Planning Commission of India was established in
(a) 1947
(b) 1950
(c) 1951
(d) 1949
56. How many types of emergencies are envisaged by the Constitution?
(a) 1
(b) 2
(c) 3
(d) 4
57. Who calls the Joint Session of the two Houses of the Parliament?
(a) The President
(b) The Prime Minister
(c) The Lok Sabha Speaker
(d) The Vice-President
58. In which year, Gandhiji established Sabarmati Ashram in Gujarat?
(a) 1916
(b) 1917
(c) 1918
(d) 1929
59. No confidence Motion against the Union Council of Minister can be initiated
(a) in the Rajya Sabha only
(b) in the Lok Sabha only
(c) in the Lok Sabha and Rajya Sabha
(d) in the State Assemblies
60. Which constitutional Amendment deleted the Right to Property from the list of Fundamental Rights?
(a) 42nd Amendment
(b) 62nd Amendment
(c) 44th Amendment
(d) 43rd Amendment
61. Most of the Chola temples were dedicated to
(a) Vishnu
(b) Shiva
(c) Brahma
(d) Durga
62. Where was the First Session of Indian National Congress held?
(a) Bombay
(b) Madras
(c) Calcutta
(d) Delhi
63. In the Gupta period, the largest number of coins were issued in
(a) gold
(b) silver
(c) copper
(d) iron
64. The tax which the kings used to collect from the people in the Vedic period was called-
(a) Bali
(b) Vidatha
(c) Varman
(d) Kara
65. Buddha preached his first sermon at-
(a) Gaya
(b) Sarnath
(c) Pataliputra
(d) Vaishali
66. Which one of the following is not the result of underground water action?
(a) Stalactites
(b) Stalagmites
(c) Sinkholes
(d) Fiords
67. Grassland is called "pampas" in-
(a) Africa
(b) South America
(c) the United Kingdom
(d) the USA
68. The coastal part of water bodies of the oceans which is structurally part of the mainland of the continents is called
(a) isthumus
(b) oceanic ridge
(c) continental shelf
(d) continental slope
69. Anemometer is used to measure
(a) wind direction
(b) wind velocity
(c) pressure gradient
(d) wind speed and time
70. Marina Trench is found in
(a) Atlantic Ocean
(b) Pacific Ocean
(c) Indian Ocean
(d) Arctic Ocean
71. Which cells in our body have the least regenerative power?
(a) Brain cells
(b) Muscle cells
(c) Bone cells
(d) Liver cells
72. A potato tuber has been cut into two halves. A few drops of iodine solution are placed on the cut surface of one of the halves. What colour change will be noticed?
(a) From brow to blue-black
(b) From brown to orange-red
(c) From blue to pink
(d) From pink to blue-green
73. How many values does a human heart have?
(a) Four
(b) Three
(c) Two
(d) One
74. The cells which are responsible for the production of antibodies are
(a) red blood cells
(b) neutrophils
(c) lymphocytes
(d) platelets
75. The source of the enzyme, diastase is
(a) salivary gland
(b) stomach
(c) liver
(d) pancreas
76. Mycoplasma is associated with a disease that affects the organs of
(a) respiration
(b) excretion
(c) reproduction
(d) digestion
77. Which one of the following has the highest value of specific heat?
(a) Glass
(b) Copper
(c) Lead
(d) Water
78. The device used for locating submerged objects under sea is.
(a) sonar
(b) radar
(c) laser
(d) maser
79. The metal whose electrical conductivity is more, is
(a) copper
(b) aluminum
(c) silver
(d) lead
80. What happens to a liquid, when the vapour pressure equals the atmospheric pressure?
(a) The liquid cools
(b) The liquid boils
(c) No change
(d) The liquid evaporates
81. Seaweeds are important source of
(a) fluorine
(b) chlorine
(c) bromine
(d) iodine
82. In nuclear reactor, heavy water is used as
(a) coolant
(b) fuel
(c) moderator
(d) atomic smasher
83. Which one of the following pairs is correctly matched?
(a) Tetanus-BCG
(b) Tuberculosis-ATS
(c) Malaria-Chloroquin
(d) Scurvy-Thiamin
84. Tear gas used by the police to disperse the mob contains
(a) carbon dioxide
(b) chlorine
(c) ammonia
(d) hydrogen sulphide
85. Correct expansion of the term 'http' in Internet address is
(a) higher text transfer protocol
(b) higher transfer text protocol
(c) hybrid text transfer protocol
(d) hypertext transfer protocol
86. Which of the following is a Navaratna PSE?
(a) Steel Authority of India Ltd.
(b) MMTC Ltd.
(c) National Aluminum Company Ltd.
(d) Oil India Ltd.
87. 'World AIDS Day' is observed on
(a) 1st January
(b) 1st April
(c) 1st September (d) 1st December
88. Who was (is) the first lady recipient of Dada Saheb Phalke Award?
(a) Nargis Dutt
(b) Uma Devi
(c) Devika Rani
(d) Sulochana
89. Out of the following artists, who has written the book, Meandering pastures of Memories?
(a) Shovana Narayan
(b) Saroja Vaidyanathan
(c) Yamini krishnamoorthy
(d) Geeta Chandran
90. Out of the following Indian States, which

State does not have any maritime boundary?
(a) Gujarat
(b) Goa
(c) Rajasthan
(d) Maharashtra
91. With which brand of product, is the slogan 'Just do it' associated?
(a) Bata
(b) Power
(c) Wood land
(d) Nike
92. With which of the following books, is Dr. S.

Radhakrishnan associated?
(A) An Idealist View of Life
(B) Bhagavad Gita
(C) Conquest of self
(D) Hindu View of Life
(a) A, B, and C only
(b) B, C and D only
(c) A, C and D only
(d) A, B and D only
93. The Headquarters of International Court of Justice is located in
(a) Paris (France)
(b) Geneva (Switzerland)
(c) New York (USA)
(d) The Hague (Netherlands)
94. 'Subroto Cup' is associated with which game/sports?
(a) Hockey
(b) Football
(c) Basketball
(d) Badminton
95. The first talkie film in India was
(a) Raja Harishchandra
(b) Alam Ara
(c) Chandida
(d) Jhansi Ki Rani
96. Who holds the record for scoring the highest
number of runs (individuals) in One-day Cricket World Cup Tournaments?
(a) S. Gnaguly
(b) S. Tendulkar
(c) B. Lara
(d) G. Kirsten
97. Which is the field in which Ustad Bismillah Khan has distinguished himself?
(a) Sitar
(b) Guitar
(c) Shehnai
(d) Hindustani Music (Classical-Vocal)
98. Where is the Baba Imambara located?
(a) Agra
(b) Lucknow
(c) Patna
(d) Allahabad
99. What does the open market operation of the RBI mean?
(a) Buying and selling shares
(b) Auctioning of foreign exchange
(c) Trading is securities
(d) Transaction in gold
100. 'Consumer Day' is celebrated every year on
(a) 1st April
(b) 23rd April
(c) 15th March
(d) 5th December

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## ANSWER SHEET

| 51. (c) | 52. (a) | 53. (c) | 54. (b) | 55. (b) | 56. (c) | 57. (a) | 58. (b) | 59. (b) | 60. (c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 61. (b) | 62. (a) | 63. (a) | 64. (a) | 65. (b) | 66. (d) | 67. (b) | 68. (c) | 69. (b) | 70. (b) |
| 71. (a) | 72. (a) | 73. (c) | 74. (c) | 75. (a) | 76. (a) | 77. (d) | 78. (a) | 79. (c) | 80. (b) |
| 81. (d) | 82. (c) | 83. (c) | 84. (b) | 85. (d) | 86. (d) | 87. (d) | 88. (c) | 89. (a) | 90. (c) |
| 91. (d) | 92. (d) | 93. (d) | 94. (b) | 95. (b) | 96. (c) | 97. (c) | 98. (b) | 99. (c) | 100. (c) |

## PART-III

## ENGLISH LANGUAGK

Directions (101-105): In the following questions, some of the sentences have errors and some have none. Find out which part of a sentence has an error. The number of that part is your answer. If there is no error, your answer (4) i.e. No error.
101. (a) They agreed
(b) to repair the damage
(c) freely of charge
(d) No error
102. (a) When Darun heard the news that his father had been hospitalised
(b) he cancelled his trip
(c) and returned back to his village
(d) No error
103. (a) The Governing Board
(b) comprises of
(c) several distinguished personalities
(d) No error
104. (a) My uncle does not spend
(b) so much money on that house
(c) unless he thinks of moving in soon
(d) No error
105. (a) Neither my sister nor my brother
(b) are interested
(c) in moving to another house
(d) No error

Directions (106-110): In the following sentences are given with blanks to be filled in with the appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four.
106. If I $\qquad$ a doctor, I would serve the poor.
(a) am
(b) had been
(c) were
(d) was
107. He is weak $\qquad$ he does a lot of work.
(a) and
(b) yet
(c) because
(d) so
108. Mahesh showed an $\qquad$ for sports at a very early stage.
(a) attitude
(b) aptitude
(c) imagination
(d) intuition
109. For $\qquad$ sake don't tell it to others.
(a) haven
(b) heaven
(c) heavens
(d) heven's
110. Napoleon's army $\qquad$ to the Russian soldiers without any flight.
(a) evaded
(b) decimated
(c) capitulated
(d) cordoned

Directions (111-115): In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.
111. Supersede
(a) suspend
(b) enforce
(c) repeal
(d) set aside
112. Perilous
(a) monstrous
(b) dangerous
(c) cautious
(d) dubious
113. Affluence
(a) richness
(b) difficulty
(c) influence
(d) awkwardness
114. Bifurcated
(a) dissected into pieces
(b) divided into two
(c) thoroughly evaluate
(d) verbally abused
115. Consensus
(a) unanimity
(b) equanimity
(c) magnanimity
(d) proximity

Directions (116-120): In the following questions, choose the word opposite in meaning to the given word.
116. Salient
(a) correct
(b) insignificant
(c) central
(d) convenient

## 117. Dormant

(a) strong
(b) reveal
(c) disguise
(d) pretended
118. Camouflage
(a) hide
(b) reveal
(c) disguise
(d) pretended
119. Latent
(a) primitive
(b) evident
(c) potent
(d) talented
120. Ample
(a) meagre
(b) quantitative
(c) sufficient
(d) tasty

Directions (121-125): In the following questions, four alternative are given for the idiom/phrase underlined in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase.
121. He is always praised for his gift of the gab.
(a) being lucky
(b) getting something free
(c) talent for speaking
(d) great skill
122. The teacher's extra hours of coaching went a long way in improving the student's performance.
(a) took great effort
(b) spent a lot of time
(c) extended widely
(d) helped considerably
123. The administration found it difficult to cope with the striking employees.
(a) move
(b) compromise
(c) handle
(d) subdue
124. The criminal was pardoned at the eleventh hour just as the was about to be hanged.
(a) at eleven o'clock
(b) suddenly
(c) at the very last moment
(d) at midnight
125. He spoke well though it was his maiden speech.
(a) long speech
(b) brief speech
(c) first speech
(d) emotional speech

Directions (126-130): In the following questions, apart of the sentences is underlined. Below are given alternatives to the underlined part at (1), (2) and (3), which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is (4).
126. He was released from the hospital yesterday
(a) let out
(b) discharged
(c) dismissed
(d) No improvement
127. The colours softened as the sum went down.
(a) brightened
(b) deepened
(c) mellowed
(d) No improvement
128. The new manager is soft - spoken and is considerable to all.
(a) conceited
(b) considerate
(c) constricted
(d) No improvement
129. He hanged his portrait is the main hall.
(a) hang
(b) hung
(c) had hanged
(d) No improvement
130. We were unable to call on you because of the rains.
(a) help
(b) invite
(c) visit
(d) No improvement

Directions (131-135): In the following questions, a group of four alternatives is given. Choose the one which can be substituted for the given words/ sentences.
131. To feel or express disapproval of something or someone.
(a) declare
(b) deprive
(c) depreciate
(d) deprecate
132. Handwriting that cannot be read
(a) ineligible
(b) decipher
(c) ugly
(d) illegible
133. Animals that can live on land and in water
(a) anthropoids
(b) aquatics
(c) amphibians
(d) aquarians
134. Easily duped or fooled
(a) insensible
(b) perceptible
(c) gullible
(d) indefensible
135. Fear of water
(a) claustrophobia
(b) hydrophobia
(c) insomnia
(d) obsession

Directions (136-140): In the following question, groups of four words are given. In each group, one word is correctly spelt. Find the correctly spelt word.
136.
(a) despondant
(b) detrimental
(c) diaphanous
(d) dilapidated
137.
(a) seperate
(b) confidance
(c) reference
(d) prosperous
138.
(a) reprimand
(b) resplendant
(c) respositary
(d) requisite
139.
(a) necter
(b) necassary
(c) puntuation
(d) punjent
140.
(a) irrelevance
(b) maintence
(c) exuberance
(d) acquaintence

Directions (141-150): In the following passage, some of the words have been left out. First read the passage over and try to understand what it is about. The fill in the blanks with the help of the alternatives given.

## PASSAGE

141 the common 142, the ostrich does not bury its head in the sand to $\underline{143}$ danger. A ostrich can run 144 a speed of forty-five miles $\underline{145}$ hour, kick
powerfully and $\underline{146}$ aggressively $\underline{147}$ its break.
As the 148 and fastest bird in the world, it 149 need to 150 its head.
141. (a) In keeping with
(b) As per
(c) According to
(d) Contrary to
142. (a) fact
(b) view
(c) expectation
(d) belief
143. (a) resist
(b) avoid
(c) face
d) encounter
144. (a) with
(b) for
(c) at
(d) to
145.
(a) one
(b) per
(c) a
(d) every
146.
(a) peck
(b) play
(c) push
(d) poke
147. (a) on
(b) through
(c) with
(d) by
148. (a) larger
(b) largest
(c) more large
(d) largest
149.
(a) doesn't
(b) did
(c) does
(d) didn't
150. (a) put
(b) cover
(c) shield
(d) bury

| 101. (c) | 102. (c) | 103. (b) | 104. (a) | 105 (d) | 106 (c) | 107 (b) | 108 (b) | 109 (d) | 110 (c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 111 (c) | 112 (b) | 113 (a) | 114 (b) | 115 (a) | 116 (a) | 117 (d) | 118 (b) | 119 (d) | 120 (a) |
| 121 (c) | 122 (d) | 123 (c) | 124 (c) | 125 (c) | 126 (b) | 127 (b) | 128 (b) | 129 (b) | 130 (b) |
| 131 (d) | 132 (d) | 133 (c) | 134 (c) | 135 (b) | 136 (d) | 137 (d) | 138 (b) | 139 (d) | 140 (c) |
| 141 (d) | 142 (d) | 143 (d) | 144 (c) | 145 (b) | 146 (a) | 147 (c) | 148 (b) | 149 (a) | 150 (d) |

## PART- IV

ARITHMETIC
151. If $/ 3=\sqrt{1.732}$, is given, then the value of $\frac{2+\sqrt{3}}{2 \sqrt{3}}$ is
(a) 11.732
(b) 13.928
(c) 12.928
(d) 13.925
152. $(\sqrt{2}+\sqrt{-22} \sqrt{\sqrt{10}})$ is equal to
(a) $\sqrt{2}$
(b) $\sqrt{7}$
(c) $\sqrt{5}$
(d) $2 / 5$
153. The number, which is to be added to 0.01 to get 1.1. is
(a) 1.11
(b) 1.09
(c) 1
(d) 0.10

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154. If $n+\overline{3} n+\overline{2} n=97$ then the value of $n$ is
(a) 40
(b) 42
(c) 44
(d) 46
155. $25,50,30,45,35,40$, ?
(a) 30
(b) 35
(c) 40
(d) 45
156. $[1 \times 2+2 \times 3+3 \times 4 \times 5+5 \times 6+6 \times 7+7$ $\times 8+8 \times 9+9 \times 10+10 \times 11$ ] is equal to
(a) 770
(b) 660
(c) 440
(d) 330
157. $\left[\left(7^{-1}-8^{-1}\right)^{-1}-\left(3^{-1}-4^{-1}\right)^{-1}\right.$ is equal to
(a) 56
(b) 44
(c) 50
(d) 48
158. If $x, y$ and $z$ are real numbers such that $(x-3)^{2}+$ $(y-4)^{2}+(z-5)^{2}=0$ then $(x+y+z)$ is equal to
(a) -12
(b) 0
(c) 8
(d) 12
159. $\left[2^{2}+3^{2}+4^{2}+5^{2}+6^{2}+7^{2}+8^{2}+9^{2}+\right.$ $\left.10^{2}\right]$ is equal to
(a) 385
(b) 2916
(c) 540
(d) 384
160. The value of
$\frac{137 \times 137+137 \times 122+133 \times 133}{137 \times 137 \times 137-133 \times 133 \times 133}$
(a) 4
(b) $\frac{1}{4}$
(c) 270
(d) $\frac{1}{270}$
161. The product of two numbers is 120 and the sum of their squares is 289 . The sum of the two numbers is
(a) 23
(b) 7
(c) 13
(d) 169
162. Numbers $2,4,6,8,10, \ldots, 196,198,200$ are multiplied together. The number of zeros and the end of the product on the right will be equal to-
(a) 21
(b) 22
(c) 24
(d) 25
163. A takes twice as much time as B and thrice as much as C to complete a piece work. They together complete the work in 1 day. In what time, will A alone complete the work.
(a) 9 days
(b) 5 days
(c) 6 days
(d) 4 days
164. A and B together can do a place of work in 5 days and A alone can do it in 8 days. B alone can do the same piece of work in
(a) $11 \frac{1}{3}$ days
(b) $125^{\frac{3}{2}}$ days
(c) $12 \frac{3}{5}$ days
(d) $16 \frac{4}{5}$
165. 2 men and 1 women together can complete a piece of work in 14 days, while 4 women and 2 men together can do it in 8 days, how much should a women get per day?
(a) Rs. 400
(b) Rs. 450
(c) Rs. 480
(d) Rs. 360

## Solved Paper- 31-08-2008

166. If the lengths of the three sides of a triangle are $6 \mathrm{~cm}, 8 \mathrm{~cm}$ and 10 cm , then the length of the median to its greatest side is
(a) 8 cm
(b) 6 cm
(c) 5 cm
(d) 4.8 cm
167. The circumference of a circle is 11 cm and the angle of a sector of the circle is $60^{\circ}$. The area of the sector is (use $\pi=\overline{7}$ )
(a) $1 \frac{29}{48} \mathrm{~cm}^{2}$
(b) $2 \frac{29}{48} \mathrm{~cm}^{2}$
(c) $1 \frac{27}{48} \mathrm{~cm}^{2}$
(d) $2 \frac{27}{48} \mathrm{~cm}^{2}$
168. The perimeter of a rhombus is 100 cm . if one of its diagonals is 14 cm , then the area of he rhombus is
(a) $144 \mathrm{~cm}^{2}$
(b) $225 \mathrm{~cm}^{2}$
(c) $336 \mathrm{~cm}^{2}$
(d) $400 \mathrm{~cm}^{2}$
169. The surface areas of two spheres are in the ration $4: 9$. Their volumes will be in the ratio
(a) $2: 3$
(b) $4: 9$
(c) $8: 27$
(d) $64: 729$
170. The height of the cone is 30 cm . A small cone is cut off at the top by a plane parallel to its

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base. If its volume is $2 \overline{7}$ of the volume of the cone, at what height, above the base, is the section made?
(a) 6 cm
(b) 8 cm
(c) 10 cm
(d) 20 cm
171. The discount series $10 \%, 20 \%, 40 \%$ is equivalent to a single discount of
(a) $50 \%$
(b) $56.8 \%$
(c) $60 \%$
(d) $62.28 \%$
172. A train is travelling at the rate of $45 \mathrm{krn} / \mathrm{hr}$. How many seconds, it will take to cover a
distance of $5^{4} \mathrm{~km}$ ?
(a) 36
(b) 64
(c) 90
(d) 120
173. A shopkeeper allows $4 \%$ discount on his marked price. If the cost price of an article is Rs. 100 and he has to make a profit of $20 \%$, then his marked price must be
(a) Rs. 96
(b) Rs. 120
(c) Rs. 125
(d) Rs. 130
174. If $\mathrm{A}: \mathrm{B}=3: 5$ and $\mathrm{B}: \mathrm{C}=4: 7$, Then A :
$\mathrm{B}: \mathrm{C}$ is
(a) $6: 9: 14$
(b) $3: 5: 7$
(c) $12: 20: 21$
(d) $12: 20: 35$
175. If $\frac{a}{2}=\frac{b}{3}=\frac{c}{5}$, then $\frac{a+b+c}{c}$ is equal to
(a) 2
(b) 4
(c) 5
(d) 6
176. The ratio of the quantities of sugar, in which sugar costing Rs. 20 per kg. and Rs. 15 per kg. should be mixed so that there will be neither loss nor gain on selling the mixed sugar at the rate of Rs. 16 per kg. is
(a) $2: 1$
(b) $1: 2$
(c) $4: 1$
(d) $1: 4$
177. A sum of Rs 86,700 is to be divided among $\mathrm{A}, \mathrm{B}$ and C in such a manner that for every rupee that A gets, B gets 90 paise and for every rupee that B gets. C gets 100 paise. B's share will be
(a) Rs. 26, 010
(b) Rs. 27, 000
(c) Rs. 28, 000
(d) Rs. 28, 090
178. Two types of alloys posses gold and silver in the ratio of $7: 22$ and $21: 37$. In what ratio should these alloys be mixed so as to have a
new alloy in which gold and silver would exist in the ratio $25: 62$ ?
(a) $13: 8$
(b) $8: 13$
(c) $13: 12$
(d) $6: 9$
179. The average of consecutive odd numbers is 53. The least odd number is
(a) 22
(b) 27
(c) 35
(d) 45
180. The average age of group of 20 girls is 15 years and that of another group of 25 boys it is 24 years. The average age of the two groups mixed together is
(a) 19.5 years
(b) 20 years
(c) 21 years
(d) 21.5 years
181. Five years ago, the average age of $\mathrm{P}, \mathrm{Q}$ and $R$ was 25 years and seven years ago, the average age of Q and R was 20 years. The present age of P is
(a) 36 years
(b) 29 years
(c) 24 years
(d) 21 years
182. The average per day income of $A, B$ and $C$ is Rs. 450 . If the average per day income of A and B be Rs. 400 and that of B and C be Rs. 430, the per day income of $B$ is
(a) Rs. 300
(b) Rs. 310
(c) Rs. 415
(d) Rs. 425
183. A man sold an article at a loss of $20 \%$. If he had sold it for Rs. 50 more, he would have gained $5 \%$. The cost price of the article was
(a) Rs. 250
(b) Rs. 300
(c) Rs. 180
(d) Rs. 200
184. By selling 14 watches of equal cost price at the rate of Rs. 450 each, there is a profit equal to the cost price of 4 watches. The cost price of a watch is
(a) Rs. 350
(b) Rs. 360
(c) Rs. 375
(d) Rs. 400
185. A person bought two articles A and B for Rs 5,500 . He sold A at $20 \%$ profit and B at $10 \%$ loss. He thus gained $2 \%$ on his outlay. The cost price of A was
(a) Rs. 3,000
(b) Rs. 2,500
(c) Rs. 2,000
(d) Rs. 3,500
186. If the total cost of 73 articles having equal cost is Rs. 5,110 and the total selling price of 89 such articles is Rs. 5,607, then in the transaction, there will be
(a) a loss of $15 \%$
(b) a gain of $10 \%$
(c) a loss of $10 \%$
(d) a gain of $15 \%$
187. What was the percentage increase of disbursement of loans of all banks together from 1997 to 1998 ?
(a) $6 \%$
(b) $6 \frac{22}{113} \%$
(c) $6 \frac{11}{113} \%$
(d) $7 \frac{11}{113} \%$
188. Nitin's salary was reduced by $10 \%$ and then the reduced salary was increased by $10 \%$. His new salary in comparison with his original salary is
(a) the same
(b) $1 \%$ more
(c) $1 \%$ less
(d) $5 \%$ less
189. The number of seats in a cinema hall is increased by $25 \%$. The cost of each ticket is also increased by $10 \%$. The effect of these changes on the revenue collection will be an increase of
(a) $37.5 \%$
(b) $45.5 \%$
(c) $47.5 \%$
(d) $29.5 \%$
190. A man spends $40 \%$ of his monthly salary on food and one-third of the remaining on transport. If he saves Rs. 4,500 per month,
which is equal to half the balance after spending on food and transport, his monthly salary is
(a) Rs. 11,250
(b) Rs. 22,500
(c) Rs. 25,000
(d) Rs. 45,000
191. If $80 \%$ of a number added to 80 gives the result as the number itself, then the number is
(a) 200
(b) 320
(c) 400
(d) 480
192. A bus moving as a speed of $45 \mathrm{~km} / \mathrm{hr}$ overtakes a truck 150 meters ahead going in the same direction in 30 seconds. The speed of the truck is
(a) $27 \mathrm{~km} / \mathrm{hr}$
(b) $24 \mathrm{~km} / \mathrm{hr}$
(c) $25 \mathrm{~km} / \mathrm{hr}$
(d) $28 \mathrm{~km} / \mathrm{hr}$
193. A train crosses a pole in 15 seconds and a 100 meters long platform in 25 seconds. The length of the trains is
(a) 125 m
(b) 130 m
(c) 150 m
(d) 175 m
194. In how much time, will a sum of money become double of itself at $15 \%$ per annum simple interest?
(a) $6 \frac{1}{4}$ years
(b) $6 \frac{1}{4}$ years
(c) $6 \frac{1}{3}$ years
(d) $6 \frac{2}{3}$ years
195. The difference between compound and simple interest on a sum of money for 2 years at $8 \%$ per annum is Rs 768. The sum is
(a) Rs. 1,00,200
(b) Rs. 1,30,000
(c) Rs. 1,20,000
(d) Rs. 1,02,000
196. The difference between compound interest on Rs. 5,000 for $1 \frac{1}{4}$ years at $8 \%$ per annum,
according as the interest in payable halfyearly or yearly is
(a) Rs. 8.16
(b) Rs. 8
(c) Rs. 4.08
(d) Rs. 4

Directions (197-200): The pie-chart given below shows the marks obtained by a student in an examination. If the total marks obtained by him in the examination were 540 , answer the questions given below based on this pie chart.

197. In which subject, did the student obtain 105 marks?
(a) Maths
(b) Social studies
(c) Science
(d) Hindi
198. What is the central angle corresponding of Science?
(a) $40^{\circ}$
(b) $80^{\circ}$
(c) $75^{\circ}$
(d) $60^{\circ}$
199. How many more marks were obtained by the student in Maths than those in Hindi?
(a) 30
(b) 20
(c) 10
(d) 40
200. How many marks were obtained by the student in Science?
(a) 130
(b) 120
(c) 125
(d) 140

## ANSWER SHEET

| 151 (b) | 152 (c) | 153 (b) | 154 (b) | 155 (c) | 156 (c) | 157 (b) | 158 (d) | 159 (d) | 160 (b) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 161 (a) | 162 (c) | 163 (c) | 164 (c) | 165 (a) | 166 (c) | 167 (a) | 168 (c) | 169 (c) | 170 (d) |
| 171 (b) | 172 (b) | 173 (c) | 174 (d) | 175 (a) | 176 (d) | 177 (b) | 178 (a) | 179 (d) | 180 (b) |
| 181 (a) | 182 (b) | 183 (d) | 184 (a) | 185 (c) | 186 (c) | 187 (b) | 188 (c) | 189 (a) | 190 (b) |
| 191 (c) | 192 (a) | 193 (c) | 194 (d) | 195 (c) | 196 (a) | 197 (d) | 198 (b) | 199 (a) | 200 (b) |

